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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,174

09/29/2003

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58328US002

1946

32692 7590 02/15/2012
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EXAMINER

SANDY, ROBERT JOHN

ART UNIT

PAPER NUMBER

3677

NOTIFICATION DATE

DELIVERY MODE

02/15/2012

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LEIGH E. WOOD and BYRON M. JACKSON

Appeal 2009-014537
Application 10/674,174
Technology Center 3600

Before STEFAN STAICOVICI, GAY ANN SPAHN, and
EDWARD A. BROWN, *Administrative Patent Judges*.

SPAHN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Leigh E. Wood and Byron M. Jackson (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's rejection of claims 1-3, 7-15, and 29-44 under 35 U.S.C. § 103(a) as unpatentable over Roessler¹ (EP 0 669 121 A1, pub. Aug. 30, 1995) and Dilnik (US 5,656,111, iss. Aug. 12, 1997).

¹ The Examiner and Appellants both refer to this reference as EP '121.

Appellants cancelled claims 4-6 and 16-28. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

The Invention

The claimed invention is directed to a closure system for use in articles, such as disposable diapers. Spec. 1. Claim 1, reproduced below, with italics added, is illustrative of the subject matter on appeal.

1. A closure system comprising:
 - a base tab comprising an outer edge and first and second major surfaces;
 - a carrier tab comprising first and second major surfaces, an inner edge, and an opposing outer edge, the inner edge and the outer edge defining a length of the carrier tab;
 - a fastener component attached to at least one of the first and second major surfaces of the carrier tab;
 - an overlap region in which a portion of the first major surface of the carrier tab faces the second major surface of the base tab such that the outer edge of the base tab is located between the inner and outer edges of the carrier tab; and
 - bonding tape adhesively positioned and welded to the second major surface of the base tab adjacent the overlap region, the bonding tape further adhesively attached and welded to the second major surface of the carrier tab within the overlap region,* wherein the inner edge of the carrier tab is located between the bonding tape and the second major surface of the base tab.

App. Br., Clm. Appd'x. A-1.

Independent claim 15 is directed to a closure system including, *inter alia*, the same subject matter as italicized in claim 1 *supra*. App. Br., Clm. Appd'x. A-3 to A-4.

Independent claims 31, 43, and 44 will be discussed *infra*.

OPINION

Independent claims 1 and 15 and dependent claims 2, 3, 7-14, 29, and 30

Appellants argue claims 1-3, 7-15, 29, and 30 as a group. *See App. Br. 11-14.* We select independent claim 1 as the representative claim and claims 2, 3, 7-15, 29, and 30 stand or fall with claim 1. *See also 37 C.F.R. § 41.37(c)(1)(vii).*

Appellants contest whether it would have been obvious to one of ordinary skill in the art to modify the adhesive attachment of Roessler's release tape 74 to the tape substrate member 48 and side panel 90 to be both adhesively attached and welded as taught by Dilnik in order to arrive at the claimed subject matter of bonding tape adhesively positioned and welded to the second major surfaces of the base tab and carrier tab adjacent and within, respectively, the overlap region as called for by independent claims 1 and 15. *Ans. 3-5 and 8-9; App. Br. 11-14.* The Examiner concludes that one of ordinary skill in the art would modify Roessler by the teachings of Dilnik in order for the closure system to have both good shear adhesion and good peel adhesion as taught by Dilnik. *See Ans. 4-5; see also Dilnik, col. 7, ll. 38-55.*

Appellants contend that the Examiner used impermissible hindsight because there is no suggestion in Roessler that the attachment means disclosed therein is deficient in shear adhesion and peel adhesion or that it would be desirable to use an attachment method having improved shear adhesion and peel adhesion. *App. Br. 13.* Appellants also contend that one of ordinary skill in the art would not be motivated to modify Roessler by Dilnik because Dilnik's systems use both adhesive and thermal bonds for attachment of the item with the thermal bonds being at most 20% of the bond area in contrast to Appellants' closure system which only relies on the

adhesive to position the base tab, carrier tab, and bonding tape until the bonding tape can be welded in place. App. Br. 11-12.

We are not persuaded by Appellants' contentions that the Examiner erred in concluding that it would have been obvious to one of ordinary skill in the art to modify Roessler's adhesive attachment to be both adhesively attached and welded by the teachings of Dilnik. With respect to Appellants' hindsight arguments, we note that the Examiner specifically points to Dilnik's disclosure, at column 7, lines 38-55, that the attachment of material 18 and substrate 16 by both adhesive and thermal bonds produces a system of attachment that possesses both good shear adhesion and good peel adhesion as a reason that a person of ordinary skill in the art would modify the adhesive attachment of Roessler to be both adhesively attached and welded. One of ordinary skill in the art would recognize that Dilnik provides a reason for making the proposed modification and thus, there is no basis to conclude that the Examiner improperly relied upon hindsight to reach a conclusion of obviousness as Appellants suggest.

With respect to Appellants' lack of motivation argument, we note that whether or not Roessler suggests that its attachment means is deficient in shear and peel adhesions or would benefit from having improved shear and peel adhesions is not dispositive of the obviousness of the Examiner's proposed combination. Likewise the fact that Dilnik's thermal bond accounts for at most 20% of the bond area is also not dispositive of whether it would have been obvious to one of ordinary skill in the art to modify the adhesive attachment of Roessler to be both adhesively attached and welded as taught by Dilnik. The Examiner has set forth an adequate reason as to why a person of ordinary skill in the art would modify Roessler by the

teachings of Dilnik and Appellants have not explained why the Examiner's reason lacks a rational basis. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (holding that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."). We determine that the Examiner has set forth adequate findings and reasoning with some rational underpinning in order to support the legal conclusion of obviousness.

Finally, with respect to Appellants' contention that their closure system only relies on the adhesive to position the base and carrier tabs and bonding tape until the bonding tape can be welded in place, we are not persuaded by this contention because it is not commensurate with the scope of the claims since the claims do not recite anything about the adhesive attachment only being for positioning the tabs and tape until the tape can be welded.

In view of the foregoing, we sustain the Examiner's rejection of claims 1-3, 7-15, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over Roessler and Dilnik.

Independent claims 31 and 43 and dependent claims 29, 30, and 32-42

Independent claims 31 and 43 are each directed to a closure system including, *inter alia*, a base tab and a carrier tab each having first and second major surfaces, "wherein the first major surface of the carrier tab and the second major surface of the base tab are not attached to each other within the overlap region." App. Br., Clm. Appd'x. A-4 to A-5 and A-7 to A-8.

With respect to independent claims 31 and 43 and dependent claims 29, 30, and 32-42, Appellants contest whether Roessler teaches or suggests that the first major surface of the carrier tab and the second major surface of the base tab are not attached to each other within the overlap region. Ans. 6-8; App. Br. 7-11 and Reply Br. 1-3. The Examiner alleges that Roessler's Figures 1-3 show that the first major surface of the carrier tab and the second major surface of the base tab are not attached to each other within the overlap region. Ans. 6. With respect to Appellants' argument that Roessler discloses an interconnection between substrate member 48 and release tape 74 that provides for a Y-bond (col. 24, ll. 6-8), the Examiner acknowledges that the presence of a Y-bond implies an attachment between the first major surface of the carrier tab and the second major surface of the base tab within the overlap region, but the Examiner alleges that not all embodiments of Roessler have a Y-bond. Ans. 6-7. Indeed, the Examiner suggests that Roessler's column 23, lines 37-41, which state that "release tape 74 is positioned in a superposed, adjacent relation with substrate member 48 and is attached to an interior surface of diaper 20," support that there is no requirement for a Y-bond and there is no attachment between the first major surface of the carrier tab and the second major surface of the base tab within the overlap region. Ans. 7.

Appellants refer to Roessler's column 22, line 27 through column 24, line 14 for the disclosure that the "fastener system includes a tape substrate member 48 ("carrier tab 20") attached to a side panel 90 ("base tab 10")." App. Br. 8.

We agree with Appellants. At column 22, lines 32-34 and 37-39, Roessler specifically states that "[t]he fastener tab [44] provides a factory-

bond section 50 for connecting the tape substrate member [48] to a selected portion of the diaper 20” and “the factory-bond section of fastener tab 44 is attached to the free end region 92 of the side panel 90.” Thus, Roessler discloses that the tape substrate member 48 (carrier tab) is attached to the side panel 90 (base tab). The Examiner has failed to point to any persuasive evidence in Roessler showing that the first major surface 68 of the tape substrate member 48 (carrier tab) and the second major surface of the side panel 90 (base tab) are not attached to each other within the overlap region.

In view of the foregoing, we do not sustain the Examiner’s rejection of claims 29-43 under 35 U.S.C. § 103(a) as unpatentable over Roessler and Dilnik.

Independent claim 44

Independent claim 44 is directed to a closure system including, *inter alia*, bonding tape that is adhesively attached and welded to the second major surfaces of both the base tab and carrier tab within the overlap region, “*wherein the bonding tape is welded using a welding technique selected from the group consisting of chemical welding, dynamic mechanical welding, and combinations thereof.*” App. Br., Clm. Appd’x. A-8.

The Examiner made the same findings for claim 44 as those discussed above with respect to independent claim 1. Ans. 3-5, 6, and 9-10. Appellants contend that claim 44’s recitation of a bonding tape adhesively attached and welded to the base tab and carrier tab describes a weld and “[i]t is the type of weld provided that distinguishes over the prior art, wherein the type of weld is described by how the weld is obtained.” App Br. 15.

We are not persuaded by Appellants’ arguments. We consider Appellants’ recitation in claim 44 of “wherein the bonding tape is welded

using a welding technique selected from the group consisting of chemical welding, dynamic mechanical welding, and combinations thereof” to be a product-by-process limitation. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985). Once the PTO has made out a prima facie case that the applicant’s claimed product and the product of the prior art reasonably appear to be the same, the burden shifts to the applicant to prove otherwise. *Id.* The burden of proof on the PTO in making out a case of prima facie obviousness for product-by-process claims is less than when a product is claimed in the more conventional fashion. *In re Fessman*, 489 F.2d 742, 744 (CCPA 1974). Here, the weld is the product of the product-by-process claim limitation. As it would reasonably appear to one of ordinary skill in the art that the weld from the combination of Roessler and Dilnik is either the same as or an obvious variant of the claimed weld produced by any of the processes of chemical welding, dynamic mechanical welding, and a combination thereof, we determine that the Examiner has set forth a prima facie case of obviousness to shift the burden to Appellants. As Appellants have failed to provide evidence that the weld produced by Dilnik’s thermal bonding technique is not the same as or an obvious variant of the claimed weld produced by any of the processes of chemical welding, dynamic mechanical welding, and a combination thereof, we sustain the Examiner’s rejection of claim 44 under 35 U.S.C. § 103(a) as unpatentable over Roessler and Dilnik.

DECISION

We reverse the Examiner's decision to reject claims 29-43.

We affirm the Examiner's rejections of claims 1-3, 7-15, and 44.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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